

**ERROR CORRECTION TRELLIS CODING WITH
PERIODICALLY INSERTED KNOWN SYMBOLS**

Abstract of the Disclosure

The present invention discloses a system and method for channel coding data within a digital communication system. A data receiving circuit
5 receives a digital input data sequence and periodically inserts known symbols, such as zeros, into the digital input data sequence as part of a convolutional zero code of the present invention. It forms an expanded digital input data sequence. An encoder is operatively
10 connected to the data receiving circuit and trellis encodes the expanded sequence to produce a channel coded data stream such that the number of connections between trellis nodes in a trellis are reduced.